



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,481	12/04/2003	Robert L. Kay	0305MH-42189	2096

7590 09/05/2006

Melvin A. Hunn
HILL & HUNN, LLP
Suite 1440
201 Main Street
Fort Worth, TX 76102-3105

EXAMINER

NATALINI, JEFF WILLIAM

ART UNIT	PAPER NUMBER
----------	--------------

2858

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

ek

Office Action Summary	Application No.	Applicant(s)	
	10/728,481	KAY ET AL.	
	Examiner	Art Unit	
	Jeff Natalini	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: the claim does not end in a period. Please change the semicolon after step eight with a period.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, in step 5, "the test points parents" lacks antecedent basis in the claim language, also lacking antecedent basis is step 6 "the display input value" also lacks antecedent basis. Step 6 also discloses wherein a visual comparison is performed until a perceptual match is made, this is unclear as matching requires, matching one thing to something else. In this case it is unclear to what the selected test point is being matched to. Also repetition of step 2 through 7 is done specifically one time, so therefore in the step provided have a method where two additional control points are created, but it is unclear how creating two control points "generate an inverse of an approximating spline through control points" using these step. The claim does not state how the inverse of an approximated spine is generated.

In regard to claims 9-12, "the display device" lacks antecedent basis in the claims, and in claim 11, "the luminance level" lacks antecedent basis also.

In regard to claim 13-15, it is unclear any order of control points, therefore stating "one/two of the first control points" is unclear, as it would be unknown if these are referring to the known control points or the ones created.

Claims 2-8 and 16-17 are rejected as they depend on one of the claims rejected above and do not cure the deficiencies.

Due to the indefinite nature of the claims, the scope of the claims cannot be ascertained with sufficient clarity to compare the claims with prior art.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Ballard et al. (6529197) discloses an apparatus to improve image quality of a display, a spine is created based on the control points of the segment.

Poppleton (6433840) discloses a method for image alignment disclosing a spine with control points to allow for correction of the image in a CRT.

Chandhury et al. (Pub 20060104544) discloses image feature embedding, where the interpolated surface of the source image is transformed to create a cubic spline surface.


Koike et al. (4831598) discloses a picture display apparatus to display a clear picture with high resolution with means to have a spline curve derived from a sequence of points.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Natalini whose telephone number is 571-272-2266. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeff Natalini



ANDREW H. HIRSHFELD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800